

Lesson 12.1 • Trigonometric Ratios

Name _____ Period _____ Date _____

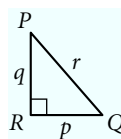
In Exercises 1–4, give each answer as a fraction in terms of p , q , and r .

1. $\sin P =$ _____

2. $\cos P =$ _____

3. $\tan P =$ _____

4. $\sin Q =$ _____



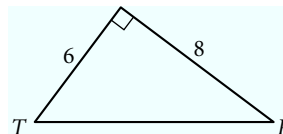
In Exercises 5–8, give each answer as a decimal accurate to the nearest 0.001.

5. $\sin T =$ _____

6. $\cos T =$ _____

7. $\tan T =$ _____

8. $\sin R =$ _____



For Exercises 9–11, solve for x . Express each answer accurate to the nearest 0.01.

9. $\cos 64^\circ = \frac{x}{28}$

10. $\sin 24^\circ = \frac{12.1}{x}$

11. $\tan 51^\circ = \frac{x}{14.8}$

For Exercises 12–14, find the measure of each angle to the nearest degree.

12. $\sin A = 0.9455$

13. $\tan B = \frac{4}{3}$

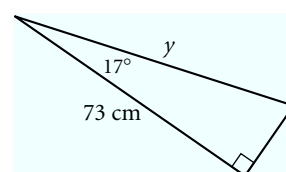
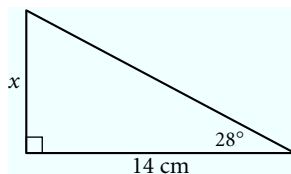
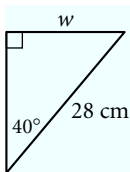
14. $\cos C = 0.8660$

For Exercises 15–17, write a trigonometric equation you can use to solve for the unknown value. Then find the value to the nearest 0.1.

15. $w \approx$ _____

16. $x \approx$ _____

17. $y \approx$ _____

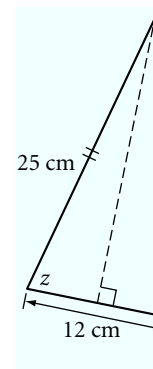
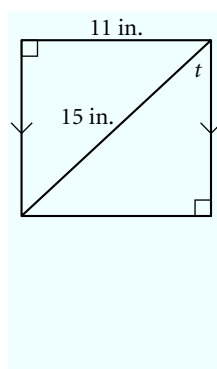
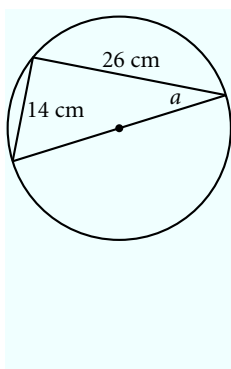


For Exercises 18–20, find the value of each unknown to the nearest degree.

18. $a \approx$ _____

19. $t \approx$ _____

20. $z \approx$ _____



Name _____

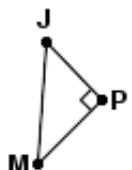
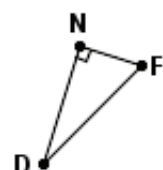
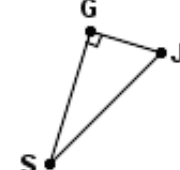
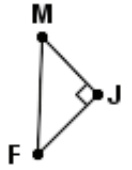
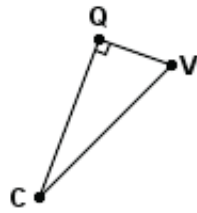
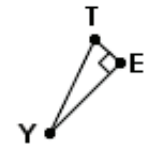
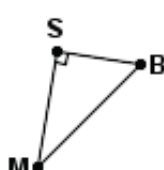
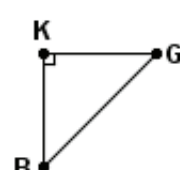
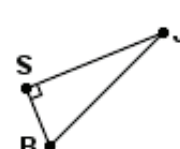


Date _____

Sine

(Answer ID # 0297692)

Complete. Round to the nearest hundredth.

<p>1. Find $\sin M$</p>  $\frac{\overline{MP}}{\overline{PJ}} = 10.5$ $\frac{\overline{PJ}}{\overline{MJ}} = 9.25$ $\overline{MJ} = 13.99$	<p>2. Find $\sin D$</p>  $\frac{\overline{DF}}{\overline{DN}} = 10.91$ $\overline{DN} = 9.7$ $\overline{FN} = 5$	<p>3. Find $\sin S$</p>  $\frac{\overline{SG}}{\overline{JG}} = 7.2$ $\frac{\overline{JG}}{\overline{SJ}} = 3.8$ $\overline{SJ} = 8.14$
<p>4. Find $\sin F$</p>  $\frac{\overline{FM}}{\overline{FJ}} = 6.04$ $\frac{\overline{FJ}}{\overline{JM}} = 4.43$ $\overline{JM} = 4.1$	<p>5. Find $\sin V$</p>  $\frac{\overline{CQ}}{\overline{VQ}} = 11.3$ $\frac{\overline{VQ}}{\overline{CV}} = 5.1$ $\overline{CV} = 12.4$	<p>6. Find $\sin T$</p>  $\frac{\overline{ET}}{\overline{YT}} = 3.2$ $\frac{\overline{YT}}{\overline{YE}} = 9.93$ $\overline{YE} = 9.4$
<p>7. Find $\sin B$</p>  $\frac{\overline{MB}}{\overline{MS}} = 5.66$ $\frac{\overline{MS}}{\overline{BS}} = 4.6$ $\overline{BS} = 3.3$	<p>8. Find $\sin B$</p>  $\frac{\overline{BK}}{\overline{GK}} = 4.1$ $\frac{\overline{GK}}{\overline{BG}} = 4.1$ $\overline{BG} = 5.8$	<p>9. Find $\sin B$</p>  $\frac{\overline{BS}}{\overline{JS}} = 5.8$ $\frac{\overline{JS}}{\overline{BJ}} = 13.8$ $\overline{BJ} = 14.97$